

# Smart Antenna Demonstrator

## Melexis Zone Detection Solution

The Melexis Smart Antenna demonstrator module is composed of the MLX73290-UHF transceiver, the MLX74190-LF initiator and the MLX81109 LIN-Slave, with the purpose of providing a complete zone detection solution for cars and off-road vehicles. The demonstrator module can be integrated with the vehicles using automotive standard LIN interface and passively identifies the presence of an authorized user through a high power LF wake-up mechanism and UHF identification exchange



## Applications

- Automotive & Motorcycle Passive Keyless Start systems
- Off-road vehicles "Dead Man's Switch"
- Passive door access systems (garage door, building ...)
- Intelligent pet feeder

## Ordering Information

The Smart antenna demonstrator is available for ordering by contacting your Melexis sales contact or directly by placing an order to [sales\\_europe@melexis.com](mailto:sales_europe@melexis.com) or [sales\\_usa@melexis.com](mailto:sales_usa@melexis.com) (Ordering references; DMB\_SmartAntenna & MLX LIN Master)



Bus ICs

BLDC Motor Control ICs

Pressure Sensors

Wireless ICs

Hall Effect ICs And Sensors

Optoelectronic Sensors

Sensor Interface ICs

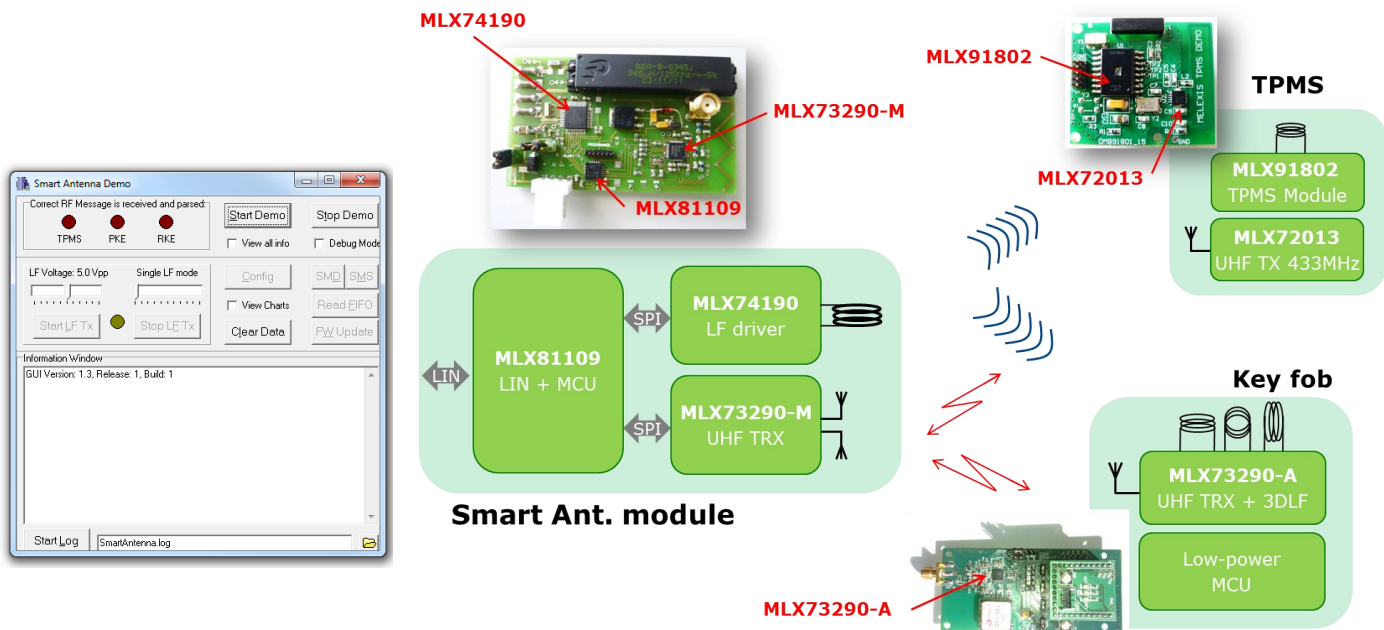
Infrared Sensors

## Features & Benefits

- Automatic reception of TPMS, RKE and PKE data information
- LF/UHF intelligent self-polling modes for ultra low power operations
- UHF Frequency optimized for 433.92MHz,  $\Delta f \pm 20\text{kHz}$  (GFSK), DR of 9.6kbps operation
- Very good UHF sensitivity < -115dBm for maximum RKE operation range
- UHF encrypted communication AES-128
- LF-125kHz High power capability up to 2.5Ap for maximum PKE operating range
- ASK & FSK immobilizer capabilities
- RSSI information for LF and RF interfaces
- 3DLF interface for ultra low-power wake-up <4 $\mu\text{A}$  (Key side)
- LIN-interface with embedded firmware example (control of MLX74190 and MLX73290-M ICs)
- Graphical User Interface (GUI) for easy and quick evaluation
- Rated for operation from -40 to 105°C

## Related Melexis Products

Part Code	Temperature Code	Package Code	Option Code
MLX74190	R (-40°C to 105°C)	PF (TQFP 7x7 48 leads)	AAA-000
MLX81109	K (-40°C to 125°C)	LQ (QFN20 5x5)	BAA-000
MLX73290-M	R (-40°C to 105°C)	LQ (QFN32 5x5)	BBM-000
MLX73290-A	S (-20°C to 85°C)	LQ (QFN32 5x5)	ABA-000
MLX91802	K (-40°C to 125°C)	XZ (SO16-wide)	DBU-000



For additional information email [info@melexis.com](mailto:info@melexis.com) or go to our website at: [www.melexis.com](http://www.melexis.com)

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